

## ■ Coil Data

### AC

| Rated voltage<br>(V) | Rated current<br>(mA) | Resistance<br>(Ω) | Must operate       | Must release | Max. voltage | Power<br>consumption      |
|----------------------|-----------------------|-------------------|--------------------|--------------|--------------|---------------------------|
|                      |                       |                   | % of rated voltage |              |              |                           |
| 6                    | 283                   | 18.90             | 75% max.           | 15% min.     | 110% max.    | Approx.1.70<br>to 2.50 VA |
| 12                   | 142                   | 75                |                    |              |              |                           |
| 24                   | 71                    | 303               |                    |              |              |                           |
| 50                   | 34                    | 1,310             |                    |              |              |                           |
| 100/120              | 17.00/20.40           | 5,260             | 75 volts           | 18 volts     | 132 volts    |                           |
| 200/240              | 8.50/10.20            | 21,000            | 150 volts          | 36 volts     | 264 volts    |                           |

### DC

| Rated voltage<br>(V) | Rated current<br>(mA) | Resistance<br>(Ω) | Must operate       | Must release | Max. voltage | Power<br>consumption |
|----------------------|-----------------------|-------------------|--------------------|--------------|--------------|----------------------|
|                      |                       |                   | % of rated voltage |              |              |                      |
| 6                    | 317                   | 18.90             | 75% max.           | 15% min.     | 110% max.    | Approx.1.90 W        |
| 12                   | 158                   | 75                |                    |              |              |                      |
| 24                   | 79                    | 303               |                    |              |              |                      |
| 48                   | 40                    | 1,220             |                    |              |              |                      |
| 100                  | 19                    | 5,260             |                    |              |              |                      |

**Note:** 1. The rated current and coil resistance are measured at a coil temperature of 23°C (73°F) with tolerances of +15%/-20% for AC rated current and  $\pm 15\%$  for DC coil resistance.

2. Performance characteristic data are measured at a coil temperature of 23°C (73°F).

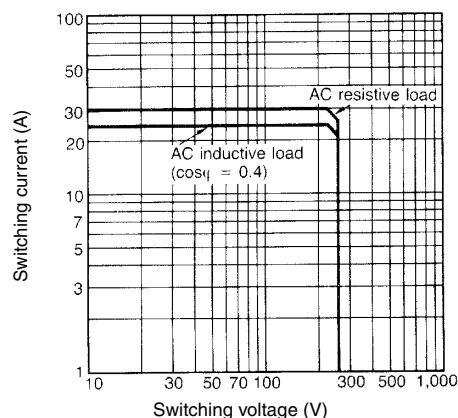
## ■ Characteristics

|                           |                        |                                                                                              |
|---------------------------|------------------------|----------------------------------------------------------------------------------------------|
| Contact resistance        |                        | 50 m $\Omega$ max.                                                                           |
| Operate time              |                        | 30 ms max.                                                                                   |
| Release time              |                        | 30 ms max.                                                                                   |
| Max. operating frequency  | Mechanical             | 1,800 operations/hour                                                                        |
|                           | Electrical             | 1,800 operations/hour (under rated load)                                                     |
| Insulation resistance     |                        | 1,000 M $\Omega$ min. (at 500 VDC)                                                           |
| Dielectric strength       |                        | 4,000 VAC, min./5,000 VAC typical, 50/60 Hz for 1 minute between coil and contacts           |
|                           |                        | 2,000 VAC, 50/60 Hz for 1 minute between contacts of same pole                               |
|                           |                        | 2,000 VAC, 50/60 Hz for 1 minute between contacts of different poles (DPST-NO type)          |
| Impulse withstand voltage |                        | Between coil and contact: 10,000 V min./12,000 V typ. (impulse wave used: 1.20 x 50 $\mu$ s) |
| Vibration                 | Mechanical durability  | 10 to 55 Hz; 1.50 mm (0.06 in) double amplitude                                              |
|                           | Malfunction durability | 10 to 55 Hz; 1.50 mm (0.06 in) double amplitude                                              |
| Shock                     | Mechanical durability  | 1,000 m/s <sup>2</sup> (approx. 100 G)                                                       |
|                           | Malfunction durability | 1,000 m/s <sup>2</sup> (approx. 10 G)                                                        |
| Life expectancy           | Mechanical             | 1,000,000 operations min. (at 1,800 operations/hour)                                         |
|                           | Electrical             | 100,000 operations min. (at 1,800 operations/hour under rated load 250,000 ops typical)      |
| Ambient temperature       |                        | -25° to 60°C (-13° to 140°F)                                                                 |
| Humidity                  |                        | 35% to 85% RH                                                                                |
| Weight                    |                        | Quick-connect terminal type: approx. 90 g (3.17 oz)                                          |
|                           |                        | PCB terminal type: approx. 100 g (3.52 oz)                                                   |
|                           |                        | Screw terminal type: approx. 120 g (4.23 oz)                                                 |

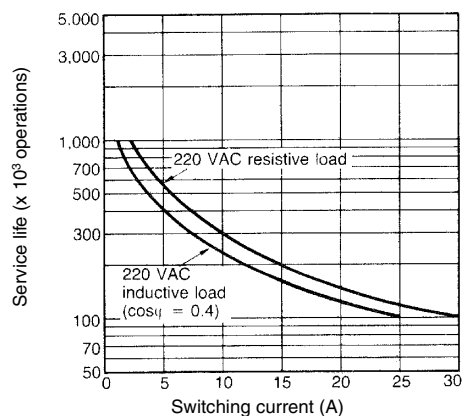
**Note:** Data shown are of initial value.

# Characteristic Data

## Maximum switching capacity



## Electrical service life

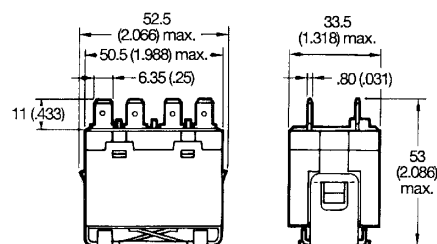


# Dimensions

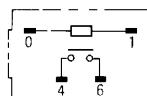
Unit: mm (inch)

## Relays

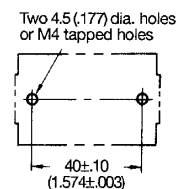
### G7L-1A-T (E Bracket Attached)\*



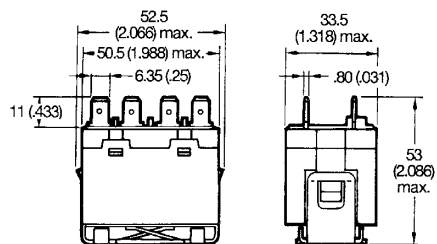
### Terminal arrangement/ Internal connections (Top view)



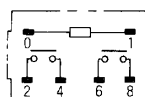
### Mounting holes (Bottom view)



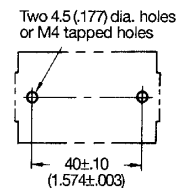
### G7L-2A-T (E Bracket Attached)\*



### Terminal arrangement/ Internal connections (Top view)



### Mounting holes (Bottom view)



\* E bracket must be ordered separately.